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09/113,751	07/10/1998	STEPHEN R. LAWRENCE	11379	8400

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EXAMINER

COLBERT, ELLA

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3624

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BEFORE THE BOARD OF PATENT APPEALS
AND INTERFERENCES

Paper No. 24

Application Number: 09/113,751
Filing Date: July 10, 1998
Appellant(s): LAWRENCE ET AL.

MAILED

APR 08 2003

Esatto, Jr., Paul J., Reg. #30,749

GROUP 3600

For Appellant

EXAMINER'S ANSWER

This is in response to the appeal brief filed 03/11/03.

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(1) *Real Party in Interest*

A statement identifying the real party in interest is contained in the brief.

(2) *Related Appeals and Interferences*

A statement identifying the related appeals and interferences which will directly affect or be directly affected by or have a bearing on the decision in the pending appeal is contained in the brief.

(3) *Status of Claims*

The statement of the status of the claims contained in the brief is correct.

(4) *Status of Amendments After Final*

The appellants' statement of the status of amendments after final rejection contained in the brief is correct.

(5) *Summary of Invention*

The summary of invention contained in the brief is correct.

(6) *Issues*

The appellants' statement of the issues in the brief is correct.

(7) *Grouping of Claims*

Appellants' brief includes a statement that claims 1, 3-16, 18-29, 46, 48-52, 54-57, 80-85, and 90 all stand or fall together and each of the Claims 86-89 stands on its own and provides reasons as set forth in 37 CFR 1.192(c)(7) and (c)(8).

(8) *Claims Appealed*

The copy of the appealed claims contained in the Appendix to the brief is correct.

(9) *Prior Art of Record*

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6,078,914

REDFERN

6-2000

U.S. Department of Commerce U.S. Patent and Trademark Office "Text Search and Retrieval Examiner Training Manual for the Automated Patent System (APS)", (April 1996), pp. 5-2- 5-4, 8-1- 8-9, 8-11- 8-13, and 8-15.

(10) Grounds of Rejection

The following ground(s) of rejection are applicable to the appealed claims:

Claims 1, 16, 46, 52, and 86-90 are rejected under 35 U.S.C. 103(a) as being unpatentable over Redfern (US 6,078,914) in view of "Text Search and Retrieval Examiner Training Manual for the Automated Patent System (APS), hereafter referred to as APS. Claims 3-15, 18-29, 48-51, 54-57, and 80-85 rejected under 35 U.S.C. 103(a) as being unpatentable over Redfern (US 6,078,914).

This rejection is set forth in prior Office Action dated 11/05/02, Paper No. 20.

Claims 1, 16, 46, 52, and 86-90 are rejected under 35 U.S.C. 103(a) as being unpatentable over Redfern (US 6,078,914) in view of "Text Search and Retrieval Examiner Training Manual for the Automated Patent System (APS), hereafter referred to as APS.

With respect to claim 1, Redfern teaches, forwarding a query to third party search engines (col. 2, lines 2-8); receiving and processing in parallel the responses from the third party search engines, the responses identifying documents in response to the query (col. 2, lines 37-44 and lines 52-67, col. 3, lines 1-15, col. 8, lines 66-67, col. 9, lines 1-8, col. 10, lines 25-44, and fig. 1 (32, 36, 38, and 42) the processing including

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the steps of: (a) downloading the full text of the documents identified in response to the query (col. 4, lines 9-21 and figure 1).

Redfern did not teach, locating query terms in the documents and extracting text surrounding the query terms and displaying the text surrounding the query terms and progressively displaying information regarding the documents, and the at least one context string surrounding one or more of the query terms for each processed document containing the query terms.

APS discloses locating query terms in the documents (page 5-2, lines 25-35, page 8-6 lines 5 & 6 and the screen drawing showing keyword in context (KWIC) and extracting text surrounding the query terms and displaying the text surrounding the query terms (page 8-9, line 6 and the drawing of a display screen). KWIC (Key Word In Context) is defined as displaying the following: Up to 20 terms on either side of the search term.

With respect to claim 16, this independent claim is rejected for the similar rationale given for claim 1.

With respect to claim 46, this dependent claim is rejected for the similar rationale given for claim 1.

With respect to claim 52, this dependent claim is rejected for the similar rationale given for claim 1.

With respect to claim 86, Redfern teaches, clustering the documents based on analysis of the full text of each document and identification of co-occurring phrases and

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words, and conjunctions and displaying the information regarding the documents arranged by clusters (col. 9, lines 44-65, col. 33, lines 14-65, and Appendix J).

This independent claim is also rejected for the similar rationale given for claim 1.

With respect to claim 87, Redfern teaches displaying suggested additional query terms for expanding the query based on terms in the documents identified in response to the query (col. 5, lines 1-4).

This independent claim is also rejected for the similar rationale given for claim 1.

With respect to claim 88, Redfern teaches, receiving a query and transforming the query from the form of a question into the form of an answer prior to forwarding the query to the plurality of third party search engines (col. 2, lines 21-27 and col. 15, lines 42-49).

This independent claim is also rejected for the similar rationale given for claim 1.

With respect to claim 89, Redfern teaches displaying an indication of how close the query terms are to each other in the documents (col. 10, lines 64-67 and col. 11, lines 1-10).

This independent claim is also rejected for the similar rationale given for claim 1.

With respect to claim 90, Redfern teaches, including steps of creating a database of meta search information regarding query terms and using the database to display information relating to the query terms when a user uses those terms in a query (col. 2, lines 16-37)

Claim Rejections - 35 USC § 103

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The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 3-15, 18-29, 48-51, 54-57, and 80-85 rejected under 35 U.S.C. 103(a) as being unpatentable over Redfern (US 6,078,914).

With respect to claim 3, Redfern teaches filtering the context strings in order to improve readability by removing redundant whitespace, repeated characters, HTML comments and tags, and special characters (col. 4, lines 35-67, col. 11, lines 55-67, and col. 13, lines 15-22). These claim limitations are well known in the art as editing a search string.

With respect to claim 4, Redfern teaches identifying and displaying a list of documents identified in response to the query which do not contain any query terms (col. 16, lines 1-11).

With respect to claim 5, Redfern teaches clustering the documents based on analysis of the full text of each document and identification of co-occurring phrases and words, and conjunctions (col. 9, lines 44-65, col. 33, lines 14-65, and Appendix J).

With respect to claim 6, Redfern teaches storing the documents matching a query so a query can be repeated and only showing documents which are new or have been modified since the last query or a given time (col. 1, lines 33-45 and col. 10, lines 39-45).

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With respect to claim 7, Redfern did not explicitly teach, filtering the actual documents when viewed in full order to (a) highlight the query terms and (b) insert quick jump links so the user can quickly jump to the query term of interest, but it would have been obvious to one having ordinary skill in the art at the time the invention was made to incorporate in Redfern filtering the documents when viewed to highlight the query terms and insert the jump links because such a modification would allow the user once the documents are filtered to enter keywords and click on a link to a document to see the highlighted keyword or keywords and the user can jump links to move back and forth from link to link to documents of interest, therefore, by using a jump link, this is a more efficient method of navigating from document to document and link to link.

With respect to claim 8, Redfern did not explicitly teach, creating and using a database of meta-information regarding query terms, storing a list of movie titles, recognizing when the user enters a query containing a movie title, and taking special action such as referring the user to the review of the movie at a specific movie review site, but it would have been obvious to one having ordinary skill in the art at the time the invention was made to incorporate in Redfern the creation and use of a database of meta-information regarding query terms such as storing a list of movie titles, recognizing when a user enters a query term containing a movie title and taking a special action because such a modification would provide a database which is merely a collection of data stored on a computer storage medium such as a disk, that can be used for more than one purpose whether it is movie titles for searching the database or other information (meta-information (data information)).

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With respect to claim 9, Redfern teaches, storing and using information regarding the particular documents requested by a user in response to a query by remembering the most commonly requested document for a given query and presenting this document first in response to the same query in the future (col. 1, lines 21-65).

With respect to claim 10, Redfern teaches, analyzing the number of documents found as a function of the number of third party search engines queried, and computing the estimated size of the document base which the third party search engines index (col. 11, 55-67 and col. 16, lines 6-46).

With respect to claim 11, this dependent claim is rejected for the similar rationale given for claim 6.

With respect to claim 12, Redfern teaches detecting and displaying duplicate documents by identifying duplicate context strings (col. 3, lines 39-45 and col. 4, lines 29-34).

With respect to claim 13, Redfern did not explicitly teach, caching the full documents in order to improve access speed, but it would have been obvious to one having ordinary skill in the art at the time the invention was made to cache the full documents to improve access speed because it is well known by skilled artisans that cache is a place where data can be stored to avoid having to read the data from a slower device such as a disk. Microprocessors have an internal instruction cache for program instructions that are being read in from RAM; an external cache is also used, consisting of RAM chips that are faster than those used in a computer's memory.

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With respect to claim 14, Redfern teaches displaying suggested additional query terms for expanding the query based on terms in the documents identified in response to the query (col. 4, lines 35-43).

With respect to claim 15, Redfern teaches after all responses have been processed, further including the step of using a ranking scheme to re-rank documents according to the number of and proximity between query terms, and re-displaying the information regarding the documents according to the ranking (in col. 3, lines 3-16 and lines 32-45 and col. 4, lines 20-28).

With respect to claim 18, this dependent claim is rejected for the similar rationale given for claim 3.

With respect to claim 19, this dependent claim is rejected for the similar rationale given for claim 4.

With respect to claim 20, this dependent claim is rejected for the similar rationale given for claim 5.

With respect to dependent claim 21 this claim is rejected for the rationale given for claim 6.

With respect to dependent claim 22 this claim is rejected for the rationale given for claim 7.

With respect to dependent claim 23 this claim is rejected for the rationale given for claim 8.

With respect to dependent claim 24 this claim is rejected for the rationale given for claim 9.

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With respect to dependent claim 25 this claim is rejected for the rationale given for claim 11.

With respect to dependent claim 26 this claim is rejected for the rationale given for claim 12.

With respect to dependent claim 27 this claim is rejected for the rationale given for claim 13.

With respect to dependent claim 28 this claim is rejected for the rationale given for claim 14.

With respect to dependent claim 29 this claim is rejected for the rationale given for claim 15.

With respect to claim 48, this dependent claim is rejected for the similar rationale given for claim 3.

With respect to claim 49, this dependent claim is rejected for the similar rationale given for claim 4.

With respect to claim 50, this dependent claim is rejected for the similar rationale given for claim 5.

With respect to claim 54, this dependent claim is rejected for the similar rationale given for claim 3.

With respect to claim 55, this dependent claim is rejected for the similar rationale given for claim 4.

With respect to claim 56, this dependent claim is rejected for the similar rationale given for claim 5.

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With respect to independent claim 57 this claim is rejected for the rationale given for claim 6.

With respect to claim 80, Redfern teaches, the step of transforming the query from the form of a question into the form of an answer prior to forwarding the query to the plurality of third party search engines (col. 2, lines 21-27 and col. 15, lines 42-49).

With respect to claim 81, Redfern teaches the step of progressively displaying includes displaying an indication of how close the query terms are to each other in the documents (col. 10, lines 64-67 and col. 11, lines 1-10).

With respect to claim 82, Redfern teaches, (a) displaying the information regarding the documents and at least one context string for a predetermined number of documents ranked using term proximity information (col. 8, lines 52-62); (b) displaying the information regarding the documents and at least one context string for documents that contain less than all the query terms (col. 15, lines 60-64); and (c) displaying the information regarding the documents that contain none of the query terms (col. 16, lines 1-11). Redfern did not teach (d) displaying the information regarding the documents and at least one context string for documents that contain duplicate context strings to documents displayed earlier and (e) displaying the information regarding the documents that could not be downloaded, but it would have been obvious to one having ordinary skill in the art at the time the invention was made to display the information regarding the documents and at least one context string for documents that contain duplicate context strings to documents displayed earlier and display the information regarding the documents that could not be downloaded and to modify in Redfern because such a

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modification would allow Redfern to remove the duplicate context strings and to know which documents could not be downloaded and why they could not be downloaded.

With respect to claim 83, Redfern teaches, the step displaying suggested additional query terms for expanding the query based on terms in the documents identified in response to the query (col. 5, lines 1-4).

With respect to claim 84, Redfern teaches, the step of displaying summary information regarding the documents found and processed the summary information being separately identified for each search engine (col. 24, lines 31-66, col. 25, lines 1-67, col. 26, lines 1-16 and lines 17-67, and appendix g shows the search results for Excite; col. 27, lines 1-66, col. 28, lines 1-66, col. 29, lines 1-30 and lines 31-40, and col. 30, lines 1-39 shows the search results for Lycos).

With respect to claim 85, Redfern teaches (a) for $n = 1$ to `MaximumPhraseLength`, for each set of successive n words, if this combination of words has not already appeared in this document, then add the set to a hash table for this document and a hash table for all documents (col. 1, lines 21-32); (b) for $n = \text{MaximumPharaseLength}$ to 1, find the most common phrases of length n to a maximum of MaxN phrases which occurred more than MinN times, and add these phrases to the set of clusters (col. 4, lines 59-67 and col. 5, lines 5-23); (c) find the most common combination of two clusters from the previous step to a maximum of maxC combinations for which the combination occurred in individual documents at least minC times (col. 6, lines 16-60); (d) delete clusters which are identified by phrases which are subset of a phrase identifying another cluster (col. 10, lines 54-58); (e) merge clusters which

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contain identical documents (col. 10, lines 59-63 and col. 11, lines 11-30); and (f) display each cluster along with at least one context string from a set of documents for both the query terms and the cluster terms (col. 15, lines 50-64). Redfern did not teach a hash table but it would have been obvious to one having ordinary skill in the art at the time the invention was made to have a hash table and to modify in Redfern because such a modification would allow Redfern to have a table of hash values that provides rapid access to data records with the hash function uniquely identifying each record with pointers to each record which is well known in the art.

(11) Response to Argument

Prior to providing individual responses to each of the arguments, the Examiner notes the following: The invention as claimed in each of the pending claims is directed to a computer-implemented meta search engine. The Redfern reference classified in Class 707, subclass 3 of the U.S. Patent classification system, is the most relevant area of search for a computer-implemented meta search engine. The U.S. Department of Commerce U.S. Patent and Trademark Office "Text Search and Retrieval Examiner Training Manual for the Automated Patent System (APS)" is one of the most relevant non-patent references for text search and retrieval.

For all of the issues please refer to the rejection.

The following arguments are relevant:

In response to Appellant's argument no. 1, page 8, paragraph 2 to page 12, paragraph

1: The Redfern-APS combination fails to teach or suggest the step of progressively displaying information regarding the documents and the at least one context string

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surrounding one or more of the query terms for each processed document containing the query terms, as recited in Claims 1, 16, 46, and 52 from which claims 3-15, 18-29, 48-51, 54-57, 80-85, and 90 respectively depend and the Examiner has failed to make a prima facie rejection of obviousness.

(1) In response to Appellants' argument that the Redfern-APS combination fails to teach or suggest the step of "progressively displaying information regarding the documents and the at least one context string surrounding one or more of the query terms for each processed document containing the query terms". The Examiner has the following interpretation: Redfern did not teach locating query terms in the documents and extracting text surrounding the query terms to form at least one context string and progressively displaying information regarding the documents, and the at least one context string surrounding one or more of the query terms for each processed document containing the query terms. APS discloses locating query terms in the documents (page 5-2, lines 25-35, page 8-6 lines 5 & 6 and the screen drawing showing keyword in context (KWIC) and extracting text surrounding the query terms and displaying the text surrounding the query terms (page 8-9, line 6 and the drawing of a display screen). KWIC (Key Word In Context) is defined as displaying the following: Up to 20 terms on either side of the search term.

(2) In response to Appellants' argument that the Examiner has failed to make a prima facie rejection of obviousness a suggestion/ motivation need not be expressly stated in one or all of the references used to show obviousness. *Cable Electric Products, Inc. v. Genmark, Inc.*, 770 F.2d 1015, 1025, 226 USPQ 881, 886 (Fed. Cir.

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1985); *In re Sheckler*, 438 F.2d 999, 1001, 168 USPQ 716, 717 (CCPA 1971). It is assumed that every reference relies to some extent on the knowledge of persons skilled in the art to complement that which is disclosed therein. Further, the skilled artisan is presumed to know something more about the art than only what is disclosed in the applied reference/references. In other words, the person having ordinary skill in the art has a level of knowledge apart from the content of the references. *In re Bode*, 550 F.2d 656, 660, 193 USPQ 12, 16 (CCPA 1977); *In re Jacoby*, 309 F.2d 513, 516, 135 USPQ 317, 319 (CCPA 1962). A conclusion of obviousness is established "from common knowledge and common sense of the person of ordinary skill in the art without any specific hint or suggestion in a particular reference." *In re Bozek*, 416 F.2d 1385, 1390, 163 USPQ 545, 549 (CCPA 1969).

Sources of Rationale Supporting a Rejection under 35 U.S.C. 103: Rationale may be in a reference, or reasoned from common knowledge in the art, scientific principles, art-recognized equivalents, or legal precedent. See MPEP 2144.

In response to Appellants' argument no. 2, page 12, paragraph 2: Redfern fails to teach or suggest the computer-implemented meta search engine method comprising a step of clustering the documents based on analysis of the full text of each document and identification of co-occurring phrases and words and conjunctions thereof and displaying the information regarding the documents arranged by the clusters as recited in Claim 86.

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Redfern teaches, clustering the documents based on analysis of the full text of each document and identification of co-occurring phrases and words, and conjunctions and displaying the information regarding the documents arranged by clusters in col. 9, lines 44-65, col. 33, lines 14-65, and Appendix J.

In response to Appellants' argument no. 3, page 12, paragraph 3: Redfern fails to teach or suggest the step of displaying suggested additional query terms for expanding the query based on terms in the documents identified in response to the query as recited in Claim 87.

Redfern teaches, displaying suggested additional query terms for expanding the query based on terms in the documents identified in response to the query in col. 5, lines 1-4.

In response to Appellants' argument no. 4, page 13, paragraph 2: Redfern fails to teach or suggest the step of receiving a query and transforming the query from a form of a question into a form of an answer and forwarding the transformed query to a plurality of third party engines as recited in Claim 88.

Redfern teaches, receiving a query and transforming the query from a form of a question into a form of an answer and forwarding the transformed query to the plurality of third party engines in col. 2, lines 21-27 and col. 15, lines 42-49. It is well known in the art of "surfing the World Wide Web" after receiving a query to ask a question then to forward the search query to a search engine for a response.

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In response to Appellants' argument no. 5, page 14, paragraph 2: Redfern fails to teach or suggest the step of displaying an indication of how close the query terms are to each other in the documents as recited in Claim 89.

It is interpreted that Redfern does teach the step of displaying an indication of how close the query terms are to each other in the documents in col. 10, lines 64-67 and col. 11, lines 1-10 ("The process for ranking of the information sources employs the processed search data 28 from Natural Language Query Processor 24." See fig. 5b(608). Col. 11, lines 1-10 ("A presently preferred scoring regime is given in Appendix B.")).

In conclusion: The Examiner is entitled to give the claim limitations their broadest reasonable interpretation in light of the Specification (see below):

2111 Claim Interpretation; Broadest Reasonable Interpretation [R-1]

>CLAIMS MUST BE GIVEN THEIR BROADEST REASONABLE INTERPRETATION

During patent examination, the pending claims must be "given the broadest reasonable interpretation consistent with the specification." Applicant always has the opportunity to amend the claims during prosecution and broad interpretation by the examiner reduces the possibility that the claim, once issued, will be interpreted more broadly than is justified. In re Prater, 162 USPO 541,550-51 (CCA 1969).<

For the above reasons, it is believed that the rejections should be sustained.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Ella Colbert whose telephone number is 703-308-7064.

The examiner can normally be reached on Monday-Thursday from 6:30 am -5:00 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Vincent Millin can be reached on 703-308-1038. The fax phone numbers

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for the organization where this application or proceeding is assigned are 703-305-7687 for Official communications and 703-746-5622 for Unofficial communications.

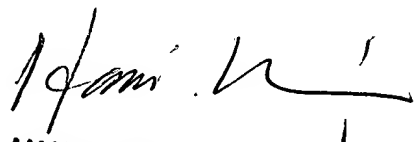
Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-308-1113.

Respectfully submitted,


E. Colbert

April 2, 2003

Conferees


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